

ABSTRACT

A process for integrating a Schottky contact inside the apertures of the elementary cells that constitute the integrated structure of the insulated gate power device in a totally self-alignment manner does not requires a dedicated masking step. This
5 overcomes the limits to the possibility of increasing the packing density of the cellular structure of the integrated power device, while permitting improved performances of the co-integrated Schottky diode under inverse polarization of the device and producing other advantages. A planar integrated insulated gate power device with high packing density of the elementary cells that compose it, having a
10 Schottky diode electrically in parallel to the co-integrated device, is also disclosed.